



Tasmanian Field Naturalists Club Inc.

BULLETIN

Editor: Geoff Fenton EMAIL fenton@southcom.com.au

Quarterly Bulletin

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The Tasmanian Field Naturalists Club encourages the study of natural history and supports conservation. People of any age and background are welcome as members.

For more information, visit our website <http://www.tasfieldnats.org.au>; email info@tasfieldnats.org.au; or write to GPO Box 68, Hobart, 7001.

Program.....	1	From the Treasurer.....	6
From the President	2	<i>Pseudobargylia iunceae</i> — an unusual assassin bug.....	7
Bulletins by email	2	Federation weekend – 3~5 Apr 2009.....	8
Pygmy possum excursion to Bruny Is – 8 Feb 2009.....	3	A Sound Idea	8
Dalco Creek - 15 March 2009.....	4	The Tasmanian Naturalist - call for contributions!.....	10

Program

General Meetings start at the new **earlier time of 7.15pm** for 7.30pm on the first Thursday of the month, in the Life Science Building at the University of Tasmania.

Excursions are usually held the following Saturday or Sunday, meeting at 9.00am outside the Museum in Macquarie St, Hobart. Bring lunch and all-weather outdoor gear.

If you are planning to attend an outing, but have not been to the prior meeting, please confirm the details as late changes are sometimes made.

Thu, 7 May	MEETING AT 7.15PM in Life Sciences building, University of Tasmania. (Please note the new early starting time.) Michael Driessen will present ' <i>What turns glow-worms on</i> '. Apart from recently being elected President of TFNC, Michael is also Senior Zoologist of the Wildlife and Marine Conservation Section, DPIW.
Sun, 10 May	Excursion to <i>Mystery Creek Cave</i> in the far south of Tasmania, led by Michael Driessen. The outing involves a pleasant half hour walk along a flat track; however, accessing and walking inside the cave will be challenging for some. Access involves a very short but awkward climb down over boulders; and inside we will be carefully walking by torchlight over cobbles within the stream bed. We will go into the cave only as far as the glow-worm chamber (about 200m). You may get your feet wet inside the cave. Please bring a torch.
Thu, 4 Jun	Meeting 7.15pm in Life Sciences building, University of Tas. Our guest speaker will be Eric Woehler on ' <i>Tasmania's beach nesting shorebirds and terns</i> '.
Sat, 6 Jun	Excursion, to <i>Poimena Reserve</i> in the Hobart suburb of Austins Ferry.
Thu, 2 Jul	Meeting 7.15pm in Life Sciences building, University of Tas. Our guest speaker will be Fred Duncan on <i>Dicksonia</i> and <i>Cyathea</i> tree-ferns.

4 or 5 Jul	<p>Excursion, led by Fred Duncan, to the tall forests near Taranna on Tasman peninsula.</p> <p>We will visit a few sites on Balts Spur Road and Pirates Road and investigate relict rainforest (including tree ferns), and the relationships between vegetation types and environment: the effects of altitude, substrate, topography, land use and rainfall on local changes in forest structure and composition.</p>
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From the President

[Michael Driessen]

In March 2009, at our last Annual General Meeting, Janet Fenton withdrew as President of TFNC after four years in the position - following an earlier stint on the committee as librarian. Another committee member, Robyn Kramer, also resigned after four years as Secretary. On behalf of the members of the TFNC, I would like to thank both Janet and Robyn for their outstanding service to the club. Fortunately for the club both plan to stay on as active members and their knowledge and skills, and particularly their friendly and enthusiastic participation in club activities, will remain with us for some time to come.

With the election of a new President, it is a good time to review various aspects of the club's activities and to consider new opportunities. This is something the committee will be focused on over the next year. This is more likely to be fine-tuning than any major change to the way we operate.

There are a couple of things that I would like to try and make happen.

I would like to capture observations made by members on excursions, or presented at meetings, and make them available to a wider audience to assist with research and conservation of the natural environment. The simplest way we can do that is to get our observations entered onto the Natural Values Atlas (NVA). The NVA is a database of observations of plants and animals managed by the Department of Primary Industries and Water (in a previous life it was known as TASPAS and GTSpOT). This is a web-based database and members can enter and access observations on all native plants and animals once they have been registered.

The club has addressed this before; Mark Wapstra provided an informative presentation on the NVA in 2007 and established a project code on the NVA for our observations. Mark has already begun entering some records. But we still have some way to go and more information on the NVA will be provided at a later date.

I would also like us to identify a place that is currently being managed for natural values, and for us to establish an annual monitoring program there. The purposes of the monitoring would be to: inform land managers of the success of their management, provide members with experience in a range of survey techniques, to use and enhance the wide range of skills currently present in the club, and to learn how the natural environment responds to changing conditions.

Please feel free to contact me or one of the committee if you have any thoughts or advice in relation to these matters, or if you have any other suggestions for the club.

Bulletins by email

The committee is encouraging all members to receive the club's bulletin by email rather than post because it will reduce the amount of paper used - something that is important for a club like ours.

However, we do appreciate that some members do not have access to email or prefer to continue to receive the bulletin by post and we will continue to offer this service.

If you wish to receive the bulletin by email please send your email address to Anna.McElDowney@utas.edu.au, including 'TFNC bulletin' in the subject line.

The response of members to this initiative will be monitored over the next 12 months.

Pygmy possum excursion to Bruny Is – 8 Feb 2009

Report by Don Hird

The main purpose of this excursion was to inspect the wooden nestboxes deployed in coastal woodland as a means of studying the biology of pygmy possums (*Cercartetus* sp.) as part of a larger project which is outlined on our website.

Unlike the wet forest habitats in which nestboxes have been deployed elsewhere, the Bruny site has yielded relatively high numbers of pygmy possums, up to six individuals from 50 boxes. On the day of the excursion excitement commenced at the second box inspected. In the box was a nest, in this case a woven sphere of shredded stringybark about 8cm in diameter. Inside was an Eastern pygmy possum, probably female. We subsequently saw two more pygmy possums including a Little pygmy possum. Other nests were made from green moss, with both types differing from nests constructed of green leaves by Eastern pygmy possums in NSW.



[photo: Abbey Throssell]

After inspecting the nestboxes most of us made our way eastwards across the isthmus to walk the northern section of Neck Beach and return via the Cape Queen Elizabeth track, while the Grove family walked the coastline towards Cape Queen Elizabeth.

General observations – D Hird, K Bonham, S Grove

Orchid: *Corunastylis tasmanica* (unusually short specimens)

Land snails: *Pernagera officieri*,
Magilaoma "tasmanica",
Helicarion cuvieri

Insects: A bristletail *Allomachilis froggatti*

A flightless female tiphiid wasp, *Thynnus zonatus*. Apparently the larvae feed on beetle larvae in the soil, presumably scarab larvae.

Seastar: *Patiriella calcar* apparently consuming the egg-mass of a sea-hare (sort of herbivorous sea-slug) *Aplysia* sp. (among the rocks and boulders between Miles Beach and Cape Queen Elizabeth)

Molluscs of note, on Miles Beach: a fragment of the pen-shell *Atrina tasmanica*, a large but fragile bivalve that lives subtidally as a filter-feeder, nearly completely buried in sand, and is rarely washed ashore.

Also, a Sowerby's or spindle-shaped volute, a large predatory gastropod that lives on subtidal sand and is not commonly washed ashore.

Reptiles: two large tiger snakes.

Birds: Swift parrot (2 flew over on a couple of occasions while we were looking for Pygmy-possums);

Forty-spotted pardalote (at least one calling from stunted white-gums beside the Cape Queen Elizabeth track as it approaches the coast);

Hooded plover (including a pair with one youngster on Miles Beach);

Richards pipit (a family on the airstrip).

Molluscs, CapeQueenElizabeth – Simon Grove

Sypharochiton pelliserpentis (snakeskin chiton)

Plaxiphora albida (giant plaxiphora chiton)

Glycymeris striatularis (striated dog-cockle)

Austromytilus rostratus (common beaked mussel)

Modiolus albicostatus (white-ribbed horse mussel)

Mytilus galloprovincialis planulatus (edible mussel)

Xenostrobus pulex (little black horse mussel)

Ostrea angasi (common mud-oyster)

Pecten fumatus (king scallop)

Atrina tasmanica (Tasmanian pen-shell)

Neotrigonia margaritacea (pearly brooch-shell)
Hiatella australis (Southern crypt-dweller)
Myadora brevis (short myadora-clam)
Fulvia tenuicostata (thin-ribbed cockle)
Lasaea australis (Southern lepton-clam)
Paphies elongata (narrow wedge-shell)
Solen vaginoides (Southern razor-shell)
Gari livida (purple sunset-shell)
Placamen placidum (placid venus-clam)
Tawera gallinula (feathered venus-clam)
Dosinia caerulea (blue-tinged dosinia-clam)
Sepia novaehollandiae (New Holland cuttlefish)
Notoacmea flammea (flame limpet)
Notoacmea mayi (Mays limpet)
Notoacmea petterdi (Petterds limpet)
Patelloida alticostata (tall-ribbed limpet)
Patelloida latistrigata (lateral-striped limpet)
Cellana solida (orange-edged limpet)
Patella peronii (scaly limpet)
Montfortula rugosa (rugose notch-limpet)
Scutus antipodes (common elephant-snail)
Haliotis rubra rubra (blacklip abalone)
Chlorodiloma odontis (chequered top-shell)
Diloma concamerata (concamerated top-shell)
Bankivia fasciata (banded kelp-shell)

Astrarium aureum (golden star-shell)
Turbo undulatus (wavy turban-shell)
Nerita atramentosa (black-operculum black nerite)
Gazameda gunnii (Gunns screw-shell)
Maoricolpus roseus (New Zealand screw-shell)
Calyptraea calyptraeformis (common shelf-limpet)
Opalia australis (Southern wentletrap)
Afrolittorina praetermissa (checked australwink)
Austrolittorina unifasciata (banded australwink)
Eunaticina umbilicata (umbilicated sand-snail)
Cabestana spengleri (Spenglers rock-whelk)
Semicassis semigranulosum (half-grained helmet-shell)
Semicassis pyrum (pear helmet-shell)
Cominella lineolata (lineated whelk)
Fusinus novaehollandiae (New Holland spindle-shell)
Dicathais orbita (common cartrut-shell)
Amoria undulata (wavy volute)
Ericusa sowerbyi (spindle-shaped volute)
Siphonaria diemenensis (Van Diemens Land siphon-shell)
Siphonaria funiculata (corded siphon-shell)
Siphonaria tasmanica (blue siphon-shell)
Marinula xanthostoma (delicate air-breather)

Dalco Creek - 15 March 2009

Excursion report by Michael Driessen

The heavy rain that fell in the early hours of Sunday morning raised fears that the excursion to Dalco Creek would be washed out. However, the weather cleared and an enthusiastic turnout of 24 people met at Dover at 10.30am before heading to Dalco Creek. Our co-tour leaders were Paddy Dalton and Mark Wapstra. The walk started within a cleared logging coupe which afforded impressive views across the D'Entrecasteaux Channel to Partridge Island and the Labillardiere Peninsula on Bruny Island. Observations took place in the logging coupe and in the adjacent forested gully. The logging coupe contained a number of fireweeds (*Senecio* spp.) including one species listed as Rare on the Tasmanian *Threatened Species Protection Act 1995*, *Senecio vellieoides*. According to Mark, disturbance is the best thing for this species. Paddy pointed out several bryophytes that were pioneers of the cleared coupe such as the cosmopolitan moss *Funaria hygrometrica* and the liverwort *Marchantia berteroana*. *Marchantia berteroana* is widespread in Australia and also known from New Zealand, Heard Island, Norfolk Island and South America. From the coupe we descended into mixed forest. Fungi were common much to the pleasure of David, Genevieve and their colleague from the Netherlands, Machiel Noordeloos. Genevieve noted that more fungi would appear as the season progresses.

At the bottom of the gully was Dalco Creek and the focus of our outing—the Slender treefern, *Cyathea cunninghamii*. This tall tree fern with a narrow trunk is listed as Endangered under the Tasmanian *Threatened Species Protection Act 1995*. Mark informed us that this was the largest stand of *C. cunninghamii* in the state with about 250 plants (a mixture of mature and immature plants). The Slender treefern occurs in small populations in 16 widely dispersed sites across the Tasmania. This small number

of populations and long maturation period (up to 30 years) makes the species particularly vulnerable to losses from stochastic events. Land clearance, forestry operations and high fire frequency are likely to have been the main contributors to its decline.

The Slender tree fern, as its name suggests, has a narrow stem (6–15cm diameter) and can grow as tall as 20m. There was one specimen in the gully that approached the height of 20m and Mark thought it might be the tallest known specimen in the State. The Slender tree fern has a much wider distribution being found in Victoria, NSW and Southeast QLD as well as in the north and south islands of NZ. It is not listed on the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999*.

The fern is named after Allan Cunningham (1791-1839), an English botanist who travelled widely in Australia and New Zealand. He was chosen by Sir Joseph Banks to travel abroad to collect plants for the Royal Botanic Gardens, Kew. He visited Hobart and Launceston in 1818 but found few new species as Robert Brown had preceded him. In 1837 he came to Australia to become the Government Botanist but resigned the following year after finding that he was required to grow vegetables for government officials!

We had aimed to continue walking down the creek to reach the bay but the going was very slow with much clambering over and between standing and fallen tree trunks. The hard going also limited our ability to make many observations as demonstrated by the species list. The fungi specialists had far more sense and success by stopping to focus on a few areas rather than attempting to make the bay.

Kevin Bonham had some success searching for snails. Significant range extensions were found for both *Pernagera architectonica* and *Allocharopa* sp. "Wellington". Both appear absent from many well-sampled nearby inland areas (Tahune, Warra, Hastings etc) so the presence of these south-eastern species in the far south is significant. *Pernagera tasmaniae* (previously found at Lady Bay) has a similar pattern of distribution. Kevin speculates these species will also be found in areas near the Huon between Geeveston and Dover, which have not been searched much for snails.

One interesting species found by the group was what at first appeared to be a small stick insect. On closer inspection it had fierce-looking raptorial forelegs and sucking mouthparts. It was an assassin bug (Ruduviidae) which Lynne Forster identified it as *Pseudobargylia iunceae*. They predate on other insects and no doubt it would be terrible to behold if you were a small insect.

At about 1.15pm we stopped for lunch on the bank of the gully where a little sun was penetrating through the trees. The presence of leeches aroused considerable interest among younger members of the party. After lunch we made our way back up the gully through the logging coupe and back to the cars.

Present: Paddy Dalton, Mark Wapstra, Amanda Thompson, Warwick Gill, Seung-ah Yi, David Tng, Elise Pendell, Gary and Gabe Bolton, Genevieve Gates, David Ratkowski, Machiel Noordeloos, Betty Bettingham Moore, Alison and John Dargue, Kevin Bonham, Abbey Throssell, Bob and George Rutherford, Michael, Sam, Harry and Ben Driessen.

Observations

C = clearfelled coupe; G = forested area in gully; * = fungimap species.

Note that the coupe and gully were not systematically searched to compare the listed groups of each area.

Macrofungi (Genevieve Gates)

<i>Amauroderma rude</i> (G) *	<i>Entoloma albidosimulans</i> (G)	<i>Pluteus</i> 'brown velvet cap, pink stipe and gills' (C)
<i>Anthrachophyllum archeri</i> (G) *	<i>Hygrocybe aurantiopallens</i> (G)	<i>Polyporus melanopus</i> (G)
<i>Armillaria novae-zelandiae</i> (G)	<i>Laccocephalum tumulosum</i> (C)	<i>Polyporus nigrocristatus</i> (G)
<i>Australopaxillum muelleri</i> (G)	<i>Lentinellus tasmanicus</i> (C)	<i>Russula clelandii</i> (G)
<i>Bisporella</i> 'green-yellow' (G)	<i>Leucoagaricus</i> sp. (G)	<i>Stropharia formosa</i>
<i>Cantharellus concinnus</i> (G)	<i>Loreleia marchantiae</i> (C)	<i>Tephroclype</i> aff. <i>anthracophila</i> (C)
<i>Clitocybe</i> 'grey-brown' (G)	<i>Lycoperdon perlatum</i> (G)	
<i>Clitocybula</i> 'streaky grey' (G)	<i>Mycena austrofilopes</i> (G)	
<i>Coprinus angulatus</i> (C)	<i>Mycena vinacea</i> (G)	
<i>Descolea recedens</i> (G)	<i>Pholiota highlandensis</i> (C)	

Plants (Betty Bettingham-Moore, Mark Wapstra, Paddy Dalton, Lynne Forster)

<i>Acacia verticillata</i> Prickley Moses (C, G)	<i>Hymenophyllum australe</i> Shiny filmyfern (G)
<i>Anopterus glandulosus</i> Tasmanian laurel (G)	<i>Hypopterygium rotulatum</i> (G)
<i>Asplenium bulbiferum</i> Mother spleenwort (G)	<i>Marchantia berteroana</i> (C)
<i>Atherosperma moschatum</i> Sassafras (G)	<i>Nematolepis squamea</i> Satinwood (G)
<i>Bedfordia salicina</i> Tasmanian blanketleaf (C, G)	<i>Nothofagus cunninghamii</i> Myrtle (G)
<i>Billardiera longiflora</i> Purple appleberry (C)	<i>Olearia argophylla</i> Musk daisybush (G)
<i>Blechnum chambersii</i> Lance waterfern (G)	<i>Polystichum proliferum</i> Mother shieldfern (C)
<i>Blechnum wattsii</i> Hard waterfern (G)	<i>Pomaderris apetala</i> Dogwood (C, G)
<i>Coprosma quadrifida</i> Native currant (G)	<i>Pteridium esculentum</i> Bracken (C, G)
<i>Crepidomanes venosum</i> Bristle filmyfern (G)	<i>Ptychomnium aciculare</i> (G)
<i>Cyathea cunninghamii</i> Slender treefern (G)	<i>Rumohra adiantiformis</i> Leathery shieldfern (G)
<i>Cyathophorum bulbosum</i> (G)	<i>Senecio linearifolius</i> Fireweed groundsel (C)
<i>Dicksonia antarctica</i> Soft treefern (G)	<i>Senecio minimus</i> Shrubby fireweed (C)
<i>Gahnia grandis</i> Cutting grass (C)	<i>Senecio velleioides</i> Forest groundsel (C)
<i>Goodenia ovata</i> Hop native-primrose (C)	<i>Sticherus tener</i> Silky fanfern (G)
<i>Grammitis billardierei</i> Common fingerfern (G)	<i>Viola hederacea</i> Ivyleaf violet (C)

Snails (Kevin Bonham)

<i>Allocharopa legrandi</i> (C, G)	<i>Mulathena fordei</i> (C)
<i>Allocharopa</i> sp. "Wellington" (G)	<i>Pernagera architectonica</i> (G)
<i>Caryodes dufresnii</i> (C, G)	<i>Pernagera tasmaniae</i> (G)
<i>Dentherona dispar</i> (G)	<i>Thryasona marchianae</i> (G)
<i>Discocharopa mimosa</i> (G)	

Orthoptera (Michael Driessen)

<i>Bobilla</i> sp. Swamp cricket (C)	<i>Phaulacridium vittatum</i> Wingless grasshopper (C)
<i>Paratettix argillaceus</i> Pygmy grasshopper (C)	

Other Invertebrates (Lynne Forster)

Bee: Apoidea: <i>Callomelitta picta</i> (C)	Bug: Reduviidae: Emesinae <i>Pseudobargylia iuncea</i> (C, G)
Bee: Apoidea: <i>Bombus terrestris</i> Large earth bumblebee (C)	Butterfly: <i>Pieris rapae</i> Cabbage white (C)
Beetle: Carabidae: <i>Rhabdotes reflexus</i> (C)	Spider: Corinnidae: <i>Supunna picta</i> (C)
Beetle: Chrysomelidae: <i>Chaetocnema</i> "TFIC sp 01" (C)	Spider: Nicodamidae: <i>Ambicodamus sororius</i> (G)
Beetle: Staphylinidae: Pselaphinae: <i>Anabaxis</i> "Chandler type 1" (C)	Spider: Prostomidae: <i>Prostomis atkinsoni</i> (G)

From the Treasurer

If you haven't paid your 2009 member subs yet, please either send a cheque to
Tasmanian Field Naturalists Club Inc., GPO Box 68, Hobart, Tasmania 7001

or direct deposit into this bank account

Tasmanian Field Naturalists Club Inc., BSB: 067 102, account: 2800 0476,
with your name as an identifier in the description field.

Annual membership subscriptions are: Adult \$30, Family \$35, Concession \$25.

Pseudobargylia iunceae — an unusual assassin bug

Species profile by Lynne Forster

What is about 2 cm long, straw coloured with a wingless stick-insect-like body, bug-like piercing mouthparts and long spiny forelegs something like a mantid? You may be looking at the thread-legged assassin bug, *Pseudobargylia iunceae* such as was encountered by Field Naturalists on an outing to Dalco Creek in March 2009. Assassin bugs (Hemiptera: Reduviidae) are all predators and mostly rely on claws and sometimes spongy pads on their feet to clasp prey. One subfamily—Emesinae—is known as the thread-legged assassin bugs. Emesinae have enhanced their predatory implements with rows of spines along their femora to enable grasping of prey and by elongating their trochanters. Trochanters are usually the shortest joint of an insect leg, connecting the coxa to the femur. The elongation of the trochanter in Emesinae provides extra reaching distance while the shortened tibia closes against the spiny femur to help hold prey. Mantids use a similar mechanism to obtain reaching distance but it is their coxa (the first leg joint) which is elongated. One handicap of this leg modification for prey capture, is that the forelegs are no longer useful for walking—it would be like us trying to walk on our knees! Emesinae must walk on only 4 legs and these are extremely long, as are their antennae.



However the adaptations of Emesinae don't stop here. Some are predators of spiders or of the prey caught in spiders webs and have special modifications beyond their extremely long fore and hind legs to enable them to negotiate webs. Wygodzinsky (1966) noted that the tibia of many Emesinae possess dorsal brushes similar to the calamistrum (combs) used by cribellate spiders to comb web, as well as, like many spiders, teeth on their claws which can cut spider web and not become entangled in it. *Pseudobargylia* species, however, lack any adaptations for spider webs. Instead they prey upon small insects, particularly psocids. Known Tasmanian species of *Pseudobargylia* are totally wingless which is an unusual feature for Hemiptera which is a family dominated by winged species though there are variations such as short-winged species or winged males and unwinged females. A winged species, *Pseudobargylia alata* has been found in Victoria (Wygodzinsky, 1974) demonstrating how difficult it is to make inferences about biology or ecology of species, even if they are in the same genus.

While Emesinae species are found in various habitats including high vegetation, dead fern fronds, birds nests, and under bark or fallen wood, it is not clear where *Pseudobargylia* species are found. Our sightings during the TFNC outing were on the ground in a clearfell area and under fallen logs in wet sclerophyll forest. Some have been collected in pitfall traps (Tasmanian Forestry Insect Collection, World Heritage Area sampling—including in buttongrass moorland (M. Driessen, pers. comm.)).

I have drafted the following rough and slightly unsatisfactory guide to distinguishing between the three known Tasmanian species in the field. However, Wygodzinsky (1966) should be referred to for accurate identification as *addititia* and *waratah* are morphologically almost indistinguishable:

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| <ul style="list-style-type: none">• numerous spines (>30) along femur; males greater than 15mm<i>Pseudobargylia iunceae</i> (Erichson)• 6 spines along femur; SE Tas.....<i>P. addititia</i> (Wygodzinsky, 1966)• 6 spines along femur; W and SW Tas<i>P. waratah</i> (Wygodzinsky, 1966) |
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References:

Wygodzinsky, P. 1966. A Monograph of the Emesinae (Reduviidae, Hemiptera) *Bulletin of the American Museum of Natural History*. **133**: 1-614.

Wygodzinsky, P. 1974. Description of the first winged species of *Pseudobargylia* (Emesinae, Reduviidae, Hemiptera). *Memoirs of the Natural Museum of Victoria*. **35**: 111–113.

Federation weekend – 3~5 Apr 2009

[Kevin Bonham]

The April Federation weekend was hosted by the Burnie Field Naturalists Club and held at Blandfordia Lodge, Cradle Valley. Abbey and I were the only Tas Field Nats members present and the remainder of the total of about 15 were from Burnie or Launceston clubs. The lodge is very cosy and pleasant and although lacking a shower or fridge was excellent value at \$10/night.

The main outing on Saturday was the Crater Lake/Wombat Pool/Lake Lilla circuit led by geomorphologist Mike Thrush who made several stops to talk about the glacial geomorphology of the area along the way. Although uphill in places the walk is manicured and hence very easy. The area was of interest to me as it fell within a grid-square with (amazingly) no previous snail records but I rectified that, finding *Pernagera kingstonensis* at Crater Lake and *Paralaoma halli* and *Trocholaoma spiceri* (suspected altitude record for this uncommon species) at Lake Lilla. Abbey photographed various wasps and grasshoppers and on return the party encountered five large wombats, one of which was right next to the boardwalk under which it eventually crawled.

Around the house there was lots to see in the mixed forest - on the Saturday afternoon Abbey and I found eight snail spp in just half an hour (*P. kingstonensis* again, *Helicarion cuvieri*, *Victaphanta milligani**, *Stenacapha hamiltoni*, *Paralaoma halli*, *Trocholaoma parvissima*, *Allocharopa* sp. "Teepookana"*, *Roblinella* sp. "Tahune" - the two marked * were substantial range extensions for western Tasmanian species). We found two beautiful velvet worms and various beetles, spiders, collembola, psocoptera etc - before being found by numerous leeches in the pencil pine below the lodge! A crayfish claw (probably the widespread species *Ombrestacoides leptomerus* but to be confirmed) was also found on the boardwalk by other members of the party.

The Saturday night dinner was at Cradle Mountain lodge. The advertised \$25 a head menu did not eventuate as the restaurant had no record of prior booking but in the end this didn't really matter since the main courses were quite large. Following this Mike Thrush gave a talk on the glacial geomorphology of Cradle Mountain and Middlesex Plains areas. The Sunday trip to Iris River (Middlesex Plains), among the furthest extents of the past glaciation, was reduced to a couple of very quick stops by cold, wet and windy weather - but not before I was able to find the only orchid of the weekend (a finished *Prasophyllum alpestre*) and a battered and shivering butterfly (*Oreixenica lathoniella*).

I'd especially like to thank Jeff Campbell for transporting us to and from Launceston, without which it would have been much more expensive and less convenient for us to participate.

A Sound Idea

Acoustic bird monitoring, newsletter No 1

[Sarah Lloyd, Central North Field Naturalists]

Since initiating *The Sound Idea* project in October 2008 I have listened to recordings from the Blue Tier, Scamander and St Helens in the northeast, King Island in the northwest, Melaleuca in the southwest and many places in between.

Those who recorded at the beginning of spring will have received a more comprehensive species list than those who made later recordings. There are 3 recorders available which means there are limited recording possibilities in any one season. The wet and windy weather last spring was not conducive to recording and consequently the recorders were occupied for longer than I anticipated. If people are willing to continue participating in this project and to make recordings at different times of the year comprehensive species lists will eventually be compiled for their locality.

This is a project that focuses on bush birds, most of which are passerines. (see definitions below) Passerines are most vocal early in the breeding season. Their singing usually begins soon after the winter solstice when lengthening days and increasing light intensity stimulate the birds to produce testosterone and to sing.

Passerines sing for various reasons: singing marks territorial boundaries and indicates to other males that a territory is occupied (thus avoiding more physical and potentially damaging altercations); male singing alerts females of their presence and the quality of a male's song signifies his health and therefore worth as a potential breeding partner.

In some species singing virtually ceases once breeding is underway. After their eggs have hatched parent birds are busy feeding nestlings and then fledglings. By autumn young birds are practising their songs. Sometimes - like a child learning to talk - they don't quite get it right.

Now that I have listened to some of the recordings I have revised the instructions.

Length of recordings

Like a conventional field survey this project aims to get a snapshot of the birds at a particular location for a limited duration.

I have found that most birds vocalise within the first 10 minutes of a recording. However, for consistency (and so the project is scientifically valid) it is important that all the sound files be **at least 20 minutes long** - slightly longer does not matter. If people have recorded for longer I feel obliged to listen to the files but it is rare that birds will only vocalise at the end of a 40 minute - or longer - recording. Of course it's bound to happen sometimes!

Some of the earlier instruction sheets may have been a little vague about how long to record. I have found that 20 minute recordings are a manageable length. They are not too long as to be tedious to listen to and after the initial concentrated listening I usually listen to them for a second - and sometimes a third - time.

Some difficulties with acoustic surveys - how you can help

It is an extremely interesting - and at times challenging - listening exercise for me.

Birds from different areas have different songs - or dialects - something that is particularly noticeable in the songs of the Yellow-throated Honeyeater, Grey Shrike-thrush and Green Rosella. Some birds (e.g. Yellow-throated Honeyeater) have extensive vocal repertoires with a different song or call depending on the season, time of day or what message they are trying to get across.

When doing conventional field surveys you can move your head so that a sound is more directed to the ear. This is not possible on a recording where all sounds are coming from one (or two) speakers. The sounds of distant birds that can easily be identified when in the field lose quality (attenuate) as they travel and may be missed on the recording. I hear tantalisingly distant sounds but unless I am 100% sure of the birds' identity I won't include it on the species list. Better microphones would overcome this, but as these can cost up to \$5,000 they are obviously beyond the budget of this project.

After I have listened to the recordings I will send to each participant a species list and an audio CD (or data DVD depending on the length and number of recordings made). I may have a question mark next to some birds and obviously would have omitted altogether a bird I didn't hear (such as a raptor or snipe). If you are 100% sure of a bird that was in the area but did not appear on the list I sent you, please notify me by email. This will be noted on the list as a sighting (rather than an acoustic record). This project is about getting as comprehensive a picture as possible of the birds at different localities and any additional information you can provide will assist in this task.

Some confusing species:

Some bird calls sound very similar to those of closely related species. Crescent Honeyeaters have a wide range of loud distinctive songs, but they also have a call that is very similar to that of the New Holland Honeyeater (whose song is not particularly distinctive). If I don't hear one of the distinctive Crescent Honeyeater sounds on the recording, I will not include the species on the list.

Similarly Brown and Tasmanian Thornbills have a range of similar calls. This is one reason I ask for a brief description of habitat - Tasmanian Thornbills are more likely to be found in wetter bush; the Browns in drier habitats.

Some definitions

Passerines (perching birds or song birds) include most of the bush birds – thornbills, honeyeaters, currawongs, ravens etc. They are characterised by the structure of their foot which has three toes pointing forward and one back and enables them to grip a perch. They also differ from non-passerines in the structure of their syrinx, their vocal organ equivalent to our larynx. Syrinxes of Passerines are more highly evolved, allowing them to sing elaborate songs.

Non-passerines - including grebes, waders, cuckoos, parrots – have variously shaped feet. Grebes have lobes toes; cuckoos, parrots, owls and kingfishers have zygodactylous feet – i.e. 2 toes pointing forward and 2 back; pelicans and cormorants have totipalmate feet – all four toes joined by webbing; ducks have webbed feet; waders have long toes etc. Non-passerines don't usually have elaborate songs and most of their vocalisations are innate – not learnt as those of passerines.

Songs of calls - generally defined thus:

‘Song’ describes the long, elaborate vocalisations produced by passerines in the breeding season to attract mates and indicate territorial boundaries. Because songs are learnt, regional variations in songs (i.e. dialects) develop in geographically isolated birds.

‘Calls’ are usually short and simple. They tend to be innate (not learnt) vocalisations that are used to indicate flight, threat, alarm or contact between birds.

Reference: Catchpole, C.K. & Slater, P.J.B. (1995) *Birdsong: biological themes and variations*. Cambridge University Press, Cambridge

The Tasmanian Naturalist - call for contributions!

[Mark Wapstra, Tas Nat editor]

Yes, it's that time again when your friendly Naturalist editor starts hassling for contributions! I must admit to being happily overwhelmed previously with contributions for volumes 129 (2007) and 130 (2008) with a wide diversity of topics. I encourage members with observations to contribute short naturalist notes, and people with more substantial data-based information to contribute more scientific papers - all are welcome as the forum has a wide audience and we try to please everybody. Book-reviews and other contributions (prose/poetry/etc.) are also most welcome.

The last two volumes have seen the introduction of colour pages for several of the articles where colour illustration enhances the readability.

In 2007 publication costs were generously supported by the Department of Defence (for an orchid-related article), and in 2008 by the cross-regional Natural Resource Management (NRM) project to implement threatened species recovery plans for threatened orchids and eyebrights through the Department of Primary Industries and Water's Threatened Species Section (for several orchid-related articles).

I'm hoping that this year's volume (131) will also be able to be printed in colour, but we will rely on sponsorship to achieve this.

I need to have draft articles to me by not much later than July (for longer articles that may require peer review) or end of August (for shorter articles, naturalist notes and book reviews). The edited version goes to the printer in September so you can all have a copy before Christmas (we aim for October delivery). The easiest way to get an article to me is via email (mark@ecotas.com.au), else mail to me at 28 Suncrest Avenue, Lenah Valley 7008 (or hand to me at a meeting/excursion). I'm happy to help with editing and review - that's my job!

Excursion photos can be seen at <http://www.tasfieldnats.org.au/ExcnPhotos/ExcnPhotos.htm>.

